

KNAUF

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2019

GYPSUM BOARD CEILING SYSTEMS



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To Our Valued Customers,

Knauf is one of the leading voices in sourcing locally and manufacturing products that are truly “Made in UAE” as well as enabling collaboration with the major industry leaders towards technological advancements in manufacturing and logistics. This has made us fully equipped to efficiently cater the needs, wants and preferences of our valued customers and clients who over time have become a part of our big family.

Our commitment towards building environmentally responsible and economically sustainable products locally have been applauded, recognized and certified by esteemed UAE government authorities such as Ministry of Interiors, Civil Defense, Central Laboratory, Quality and Conformity Council.

Headquartered in Dubai, UAE, Knauf shows its customer service excellence and commitment in the Middle East and India. We ensure that the demand meets the supply, the first time and every time by utilizing our full range of flexibility and potential of our production facilities, human resources, technical expertise, logistics and cutting edge digitalisation, thereby facilitating rapid growth and development in the region.

Here is a highlight of some of Knauf’s products, systems and services:

- Gypsum based high performance drywall building materials, system and accessories.
- ASTM certified products & systems – Ceiling, Partition, Wall Lining and Cinema System.
- Knauf Aquapanel cement boards for interior, exterior and universal usages.
- Knauf Aquapanel Exterior Systems (Exterior walls, cladding and ceiling).
- Knauf Heraklith’s acoustic designs for Interior and Exterior in ceiling & partition systems.
- Knauf Integral’s Knauf GIFA Floor, sheet-paneled access floors systems.
- Fire and acoustic rated sealants and materials.
- Multi- Purpose Joint compounds.
- Engineering and technical consultancy for architects, consultants, etc.
- Knauf Training Academy: Hands-on training.

Knauf’s high performing, innovative systems are fast and easy to install and are manufactured to meet ASTM, EN-BS and DIN Standards, to meet any client requirements. Our dedicated Training Academy is committed to making sure that all our end users are up to date of our system.

Quality, sustainability, health and safety are central to our vision, actions towards our people and the local communities ensuring every product that comes out of the line is rigorously tested, certified, approved and socio- environmentally responsible while producing them. Our ISO 9001 (Quality Management System), 14001 (Health, Environment and Safety), 18001 (OHSAS) and 50001 (Energy Management) certifications are a testament to our commitment to the same.

Our four dimensional core values called K-Values: Partnership, Commitment, Entrepreneurship and Menschlichkeit (“the human touch” in German) are the key drivers of our camaraderie and operational excellence throughout our multi-cultural organizational structure. It is this passion that subsequently reflects in our products and customer service excellence as well.

Thank you for being part of this big family and Let’s Build the Future together.

Amer Bin Ahmed
Managing Director
Knauf Middle East & India

Global Board of Director

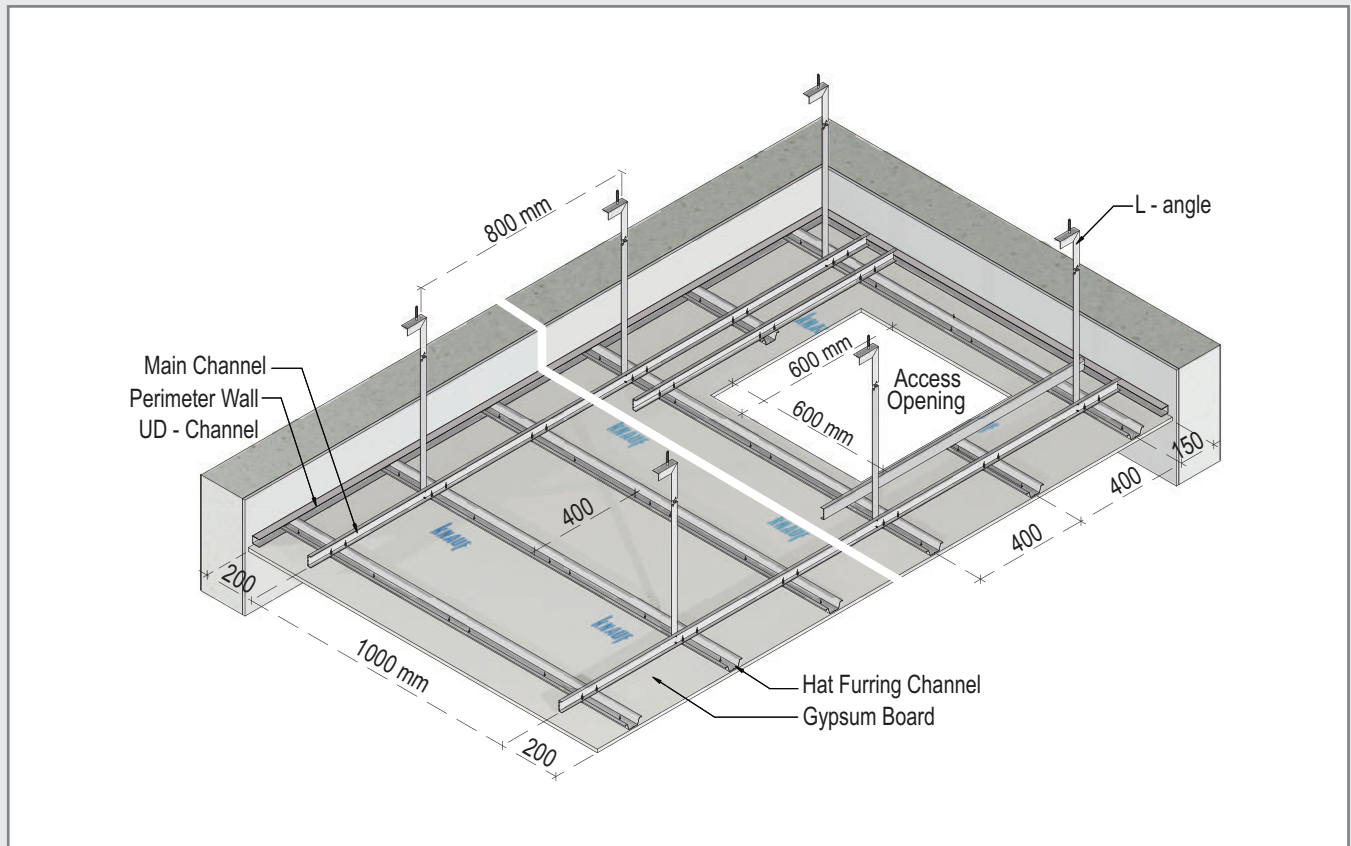
Board of Director

Intertek Certified

ISO Certified



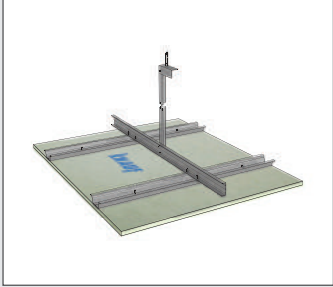
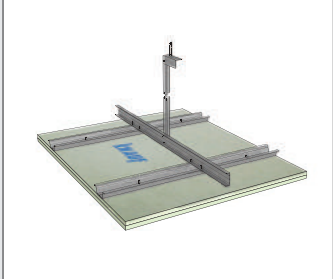
System overview



Load test reports

Test report No. SR 0308 Rev.0, multi-layer, BS EN.

Deflection Criteria L/240, under a static wind load of 500 Pa.

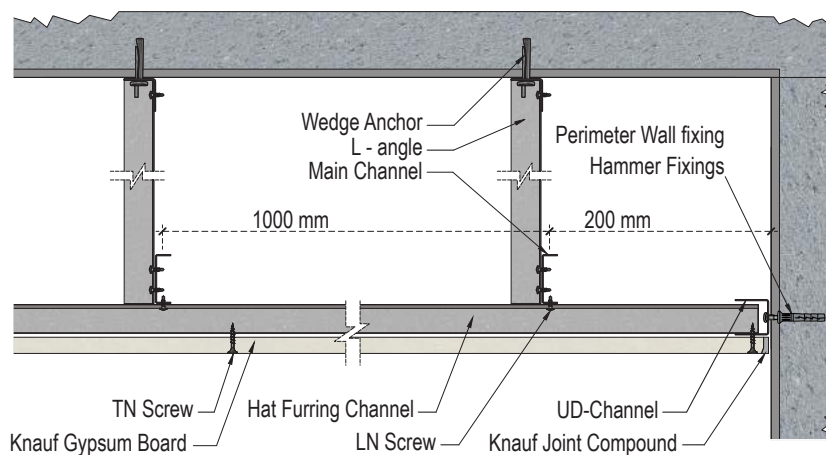
Maximum load including lightning devices, MEP, insulation, up to 50 kg/m ²	Cladding thickness	Spacing of structure			Approx. Weight (kg/m ²)
		Suspension Hangers (mm)	Upper channels (mm)	Furring channels (mm)	
	1 x 12.5 mm	800	1000	400	10.3 kg/m ²
	1 x 15 mm				13.4 kg/m ²
	2 x 12.5 mm	800	1000	400	18.9 kg/m ²
	2 x 15 mm				25.0 kg/m ²



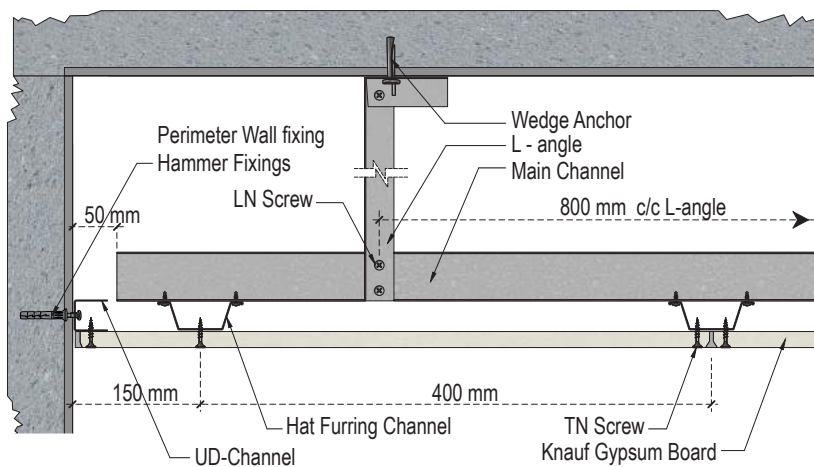
Construction details

These details represent some of the most common designs situations relevant to the Knauf KC B001 ceiling systems.

Abutment to wall, perpendicular to primary support channel

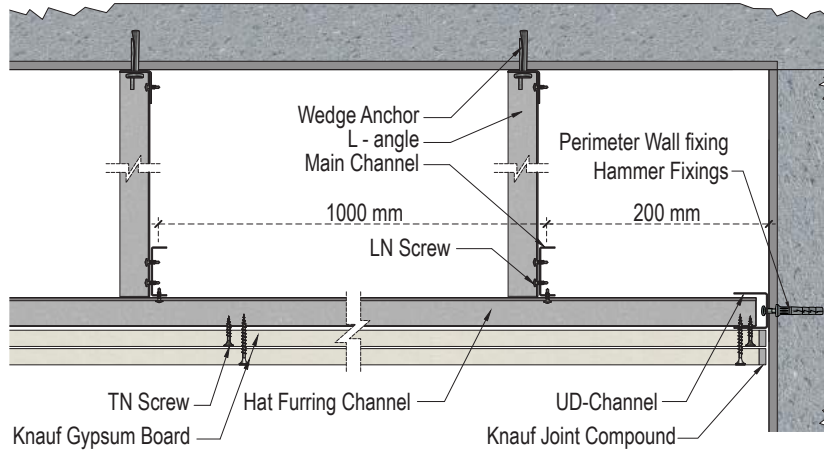


Abutment to wall, parallel to primary support channel

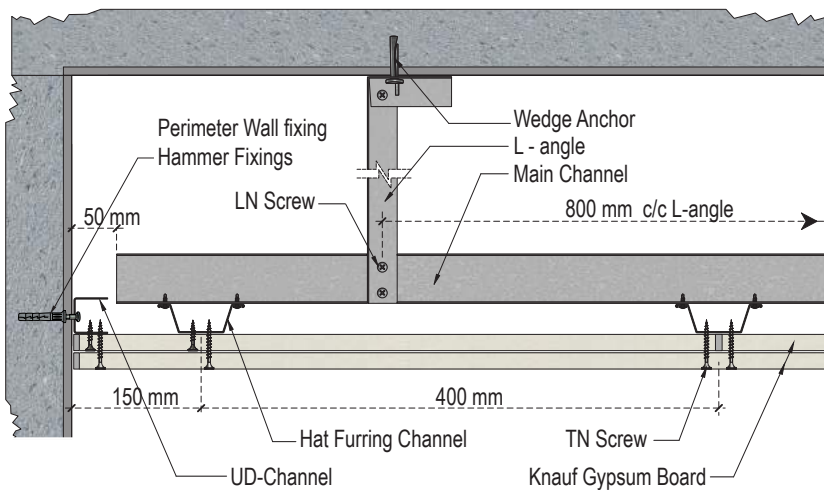


Construction details

Abutment to wall, primary support channel, double layer

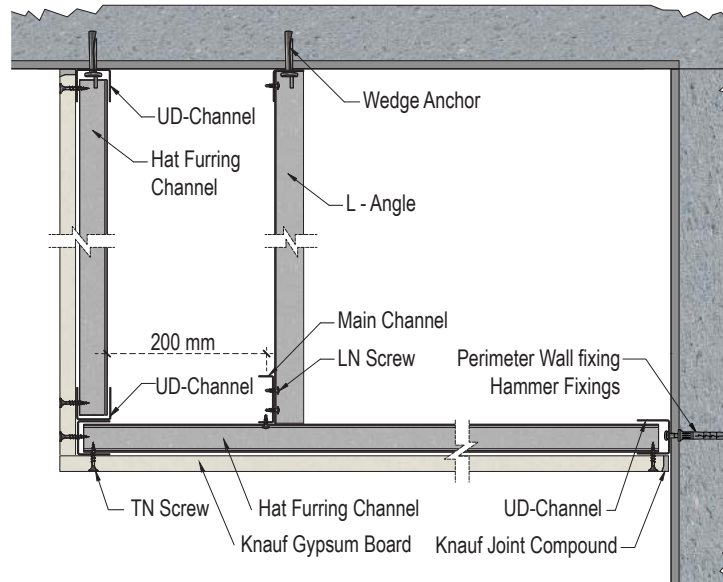


Abutment to wall, parallel to primary support channel, double layer

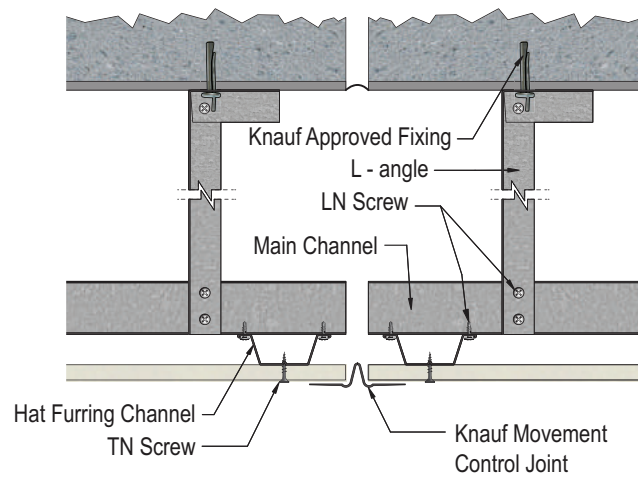


Construction details

Change of level and bulkhead

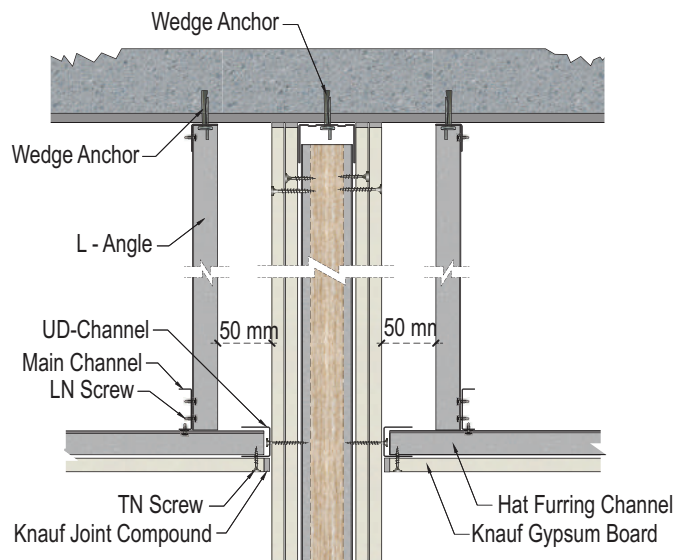


Movement control joint

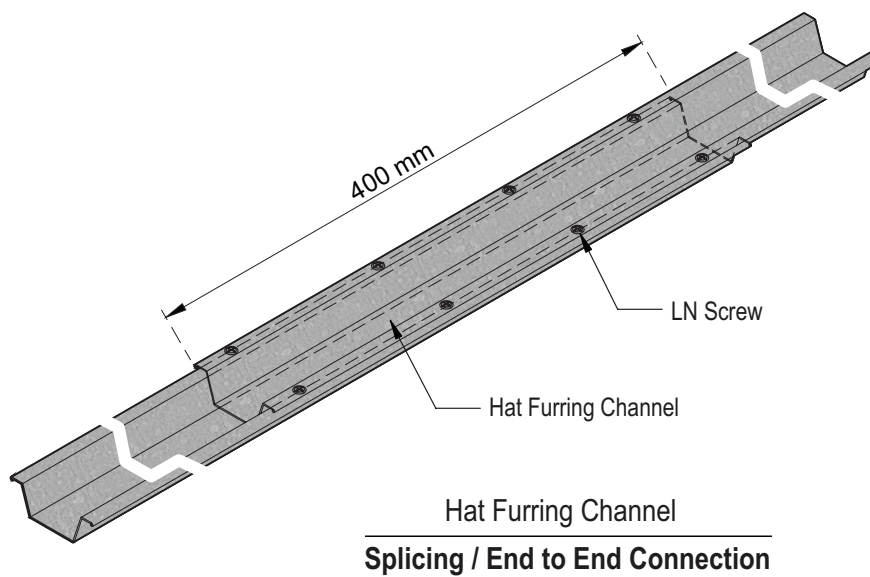


Construction details

Junction with partition



Splicing of furring channel



General information

General

Knauf KC B001 Ceiling Systems must be installed in accordance with Knauf's recommendations. When creating an airtight space, methods for the reduction of potential "ceiling lift" should be considered.

Perimeter Fixing

Mark the position of the ceiling line with a Chalk Line (1). Knauf UD channels should be secured to the walls at the required heights, at maximum 600mm centers and 50mm from the ends of channels. The Knauf UD forming the perimeter and the Knauf Main C Channels do not need to be mechanically fixed together (2).

Suspension

Select the fixing centers suited to the ceiling loading. See page 3 for spacing of dowels.

Fix Knauf approved fixing to the structural soffit with suitable fixings. Use the Knauf L Angle and fix to the approved fixing dowel (3).

Primary Support Channels – C Channels

The centers of the primary support channels should be aligned at the required height.

Knauf L Angle should be fixed to the Knauf Main C Channels with two Knauf LN Wafer Head Screws (4).

Splicing of the Main C Channels

If straight lengths of Knauf Main C Channels need jointing, place the channels back to back, with a minimum 150mm overlap, and fix with two Knauf LN Wafer Head Screws.

Hat Furring Channels

The Knauf Hat Furring Channels should be positioned at 400mm centers within the perimeter channels to coincide with the abutments of the boards, which will be fixed later. Connect the Knauf Hat Furring Channels to the Knauf Main C Channel by means of Knauf LN Wafer Head Screws (2 screws per fixing) (5).

Insulation

If insulation is required, once the primary support and the ceiling channels have been connected and before the boarding has started, Knauf insulation as specified should be inserted above the primary support channels. Care should be taken to ensure that the insulation is fitted neatly without gaps at abutments or between different rolls. The maximum weight of the whole system including all components or added elements, should not exceed 50 kg/m².

Movement Control Joints

Create movement control joints where ceiling runs exceed 10m, coinciding where possible with movement joints in the surrounding structure.

Boarding

All boards should be fixed to the ceiling grid with the decorative face of the boards outwards and secured with Knauf Screws at maximum 300 mm centers (6). Fixing centers should be reduced to 100 mm at ends and perimeter.

Boards should be mounted at 90° to the direction of the ceiling channels (7).

Second layer should be installed with staggered joints.

Installation steps

1

Mark the position of the ceiling line (deducting the thickness of the boards) with a Chalk Line.



2

Fix the UD channel on the perimeter (at 600mm centers and 50mm from end of channel).



3

Pre-drill the holes for the dowels and fix the L angle with the dowel (e.g. Wedge Anchor) at the recommended spacing.



4

Knauf Main C Channels should be fixed to the L Angle with two Knauf LN Wafer Head Screws at the desired length.



5

Connect the Knauf Hat Furring Channels to the Knauf Main C Channel by means of Knauf LN Wafer Head Screws (2 screws per fixing).



6

Screw spacing for fixing of the boards : max. 300 mm.



7

Fix the boards to the furring channel with Knauf screws.

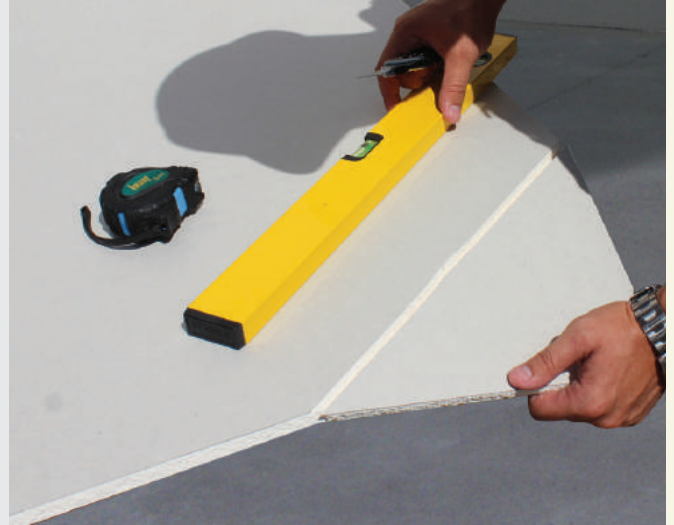


Processing of gypsum boards

Cut the paper face with a sharp knife



Score the board by pushing along the cut side, then cut the other paper side



Cut the board 45 degrees



Smooth the cut edge with a beveler



Cutting and processing the boards

- Knauf Boards shall be cut by scoring and breaking or by sawing
- When cutting by scoring, the face paper shall be cut with a utility knife
- Knauf boards shall be broken by snapping boards in the reverse direction, then cutting the back paper with a utility knife
- Cut edges should be smoothed with Knauf Beveler / Rasp Combo to obtain neat joints when installed
- Short edges should be chamfered with Knauf Beveler / Rasp Combo
- Holes for pipes or other small openings shall be scored on the back and the face outlined before removal / cut out with a purposely designed tool

Joint treatment

Cutting and processing the boards

- Board surface should be cleaned of materials such as dust, oil etc.
- Filling and covering of joints should only take place after the boards have been allowed to rest in the given humidity and temperature zones, and no more longitudinal changes can be expected, i.e. expansion or contraction.



- First coat of Knauf Joint filler should be applied with tools of sufficient width to extend a minimum 50 mm beyond both sides of the center of the joint (100 mm width).
- Knauf Joint Tape should be embedded into the joint filler to reinforce the joint between two gypsum boards.
- Once the first coat has dried, a second coat of Knauf Joint filler should be applied with 100 mm width on both sides of the center of the joint tape (200 mm width).
- A very thin third coat of Knauf Joint filler should be applied with a minimum width no less than 150 mm beyond both sides of the center of the joint tape (300 mm width).
- Once third coat has dried, surface should be sanded and smoothed.



Cladding of boards

- Boards should be mounted at 90° to the direction of the ceiling channels.
- In case of multi layer cladding, apply layers with staggered joints according to application scheme.
- Press boards of each layer firmly on to the substructure and screw each layer separately.

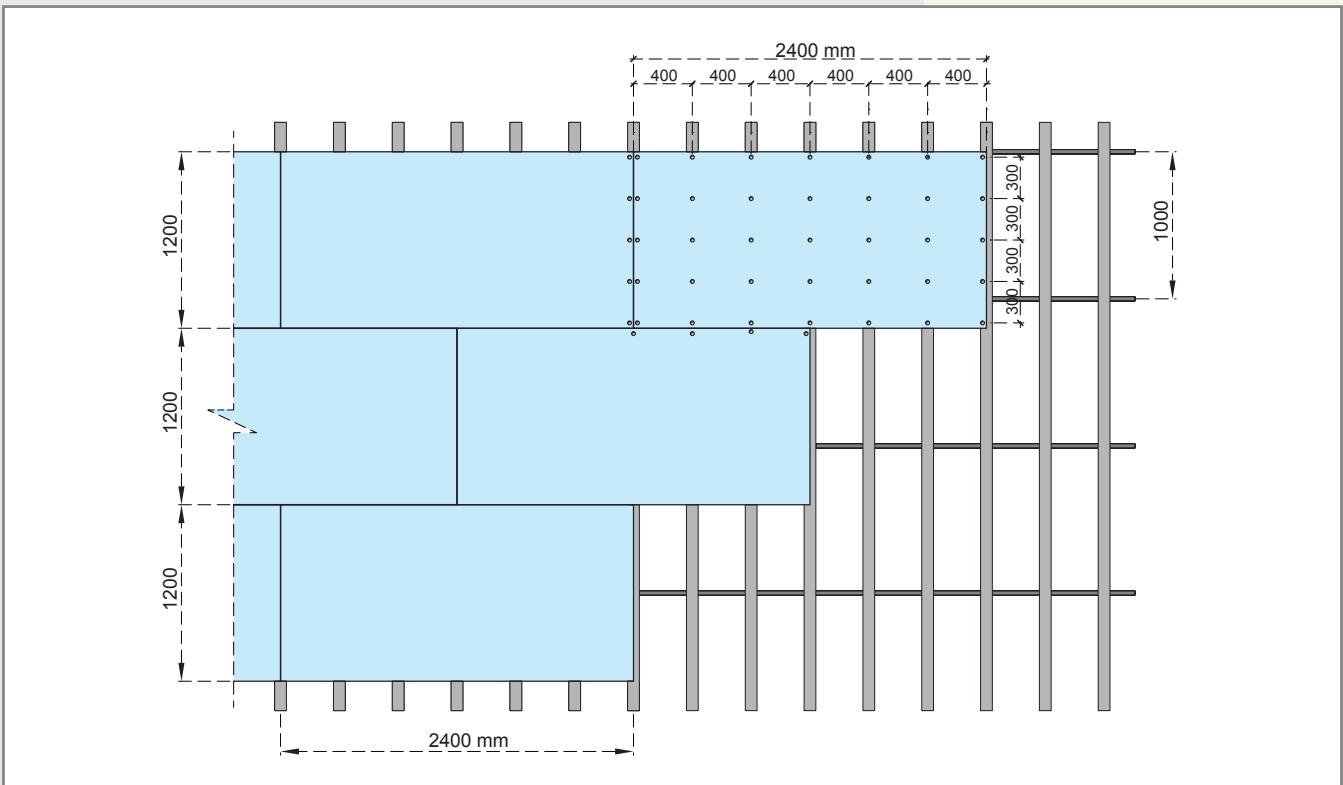
Spacing of screws

Screw Spacing first layer: 300 mm
 Screw Spacing second layer: 300 mm

Fastening of cladding

Board thickness	First layer	Second layer
12.5 mm	TN 3.9X25 mm	TN 3.9X35 mm
15 mm	TN 3.9X25 mm	TN 3.9X45 mm

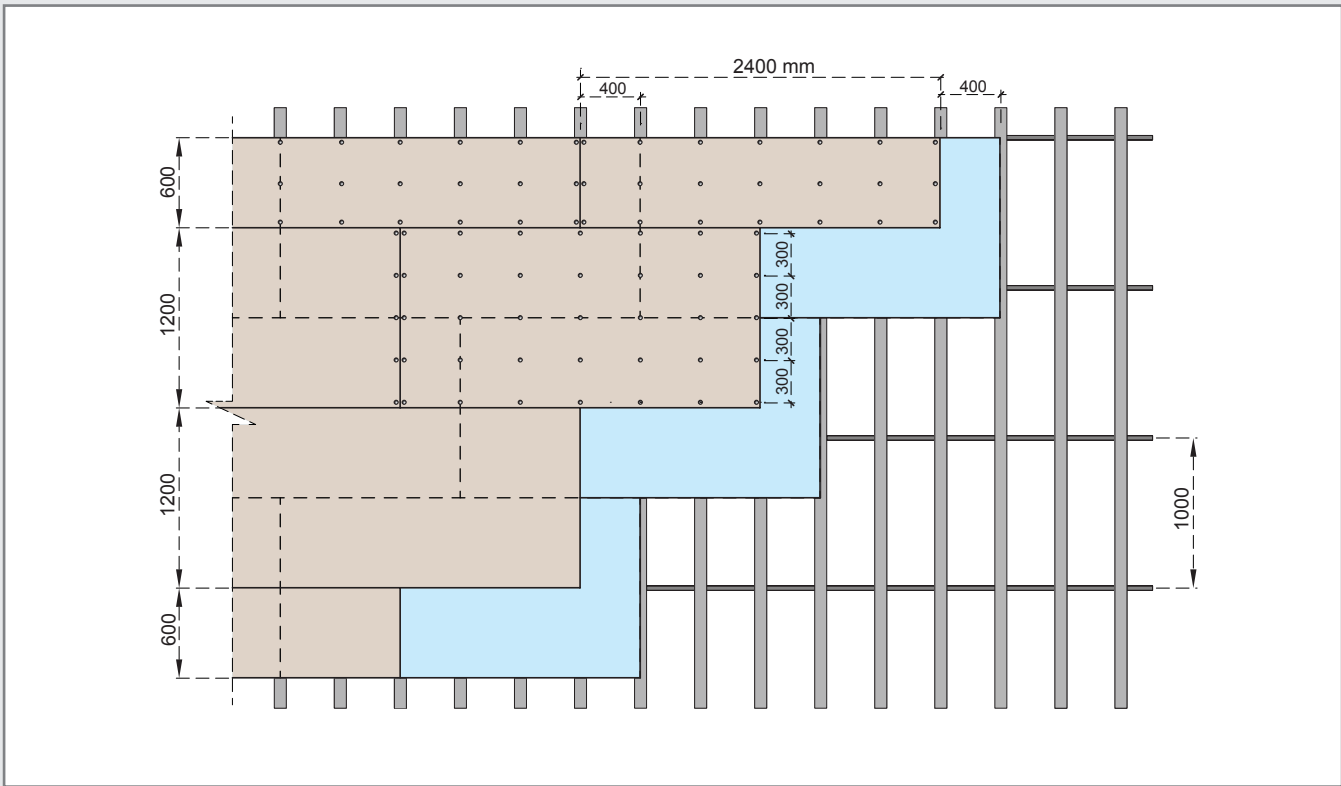
Single / First layer cladding



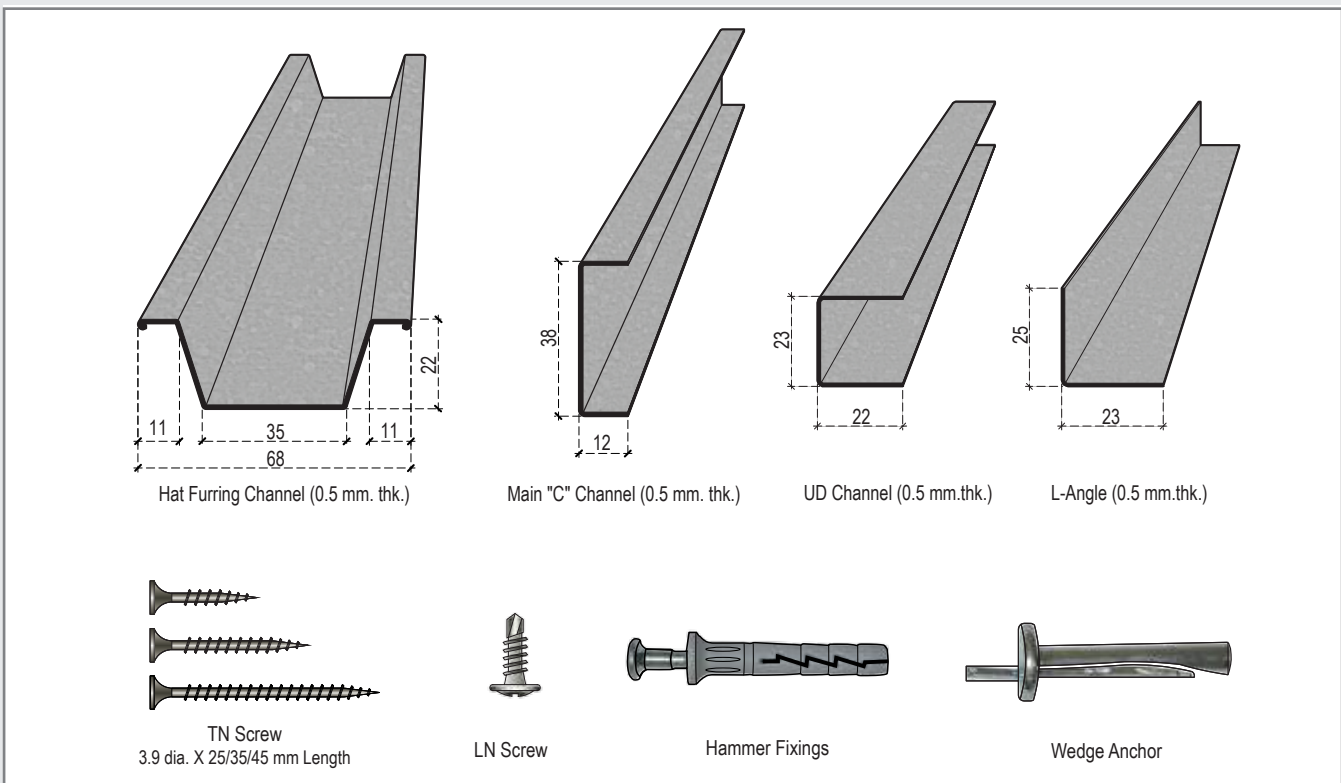
Cladding of boards

Second layer cladding

Second layer should be installed with staggered joints.



System's components



COMPANY'S CERTIFICATION

Estidama and LEED compliant products

As per Estidama & LEED requirements, our products have been tested for chemical materials banned or required to be in a very low concentration in third party well known laboratories.

Asbestos

Our products are free from asbestos. Boards produced in Knauf factory in Ras al Khaimah have been tested for asbestos content, no asbestos was detected. Complies with international requirements regulating this substance.

Formaldehyde

The boards produced in Knauf factory in Ras al Khaimah have been tested on DIN EN ISO 16009 for formaldehyde emissions. Maximum recorded concentration levels on 30 days testing were 16µg / m3 (0.016 mg/m3) – below the limits required in international standards.

VOC

Knauf joint compound Readygips has been tested for VOC (volatile organic compounds). Detected amount: 0.14 g/l is below the limits required in international standards.

Regional materials

On a range of 500 miles from factory and quarry location, our boards can provide points for regional materials mentioned in different evaluation criteria (LEED, Estidama, etc.)

ISO certifications

Knauf factory from Ras al Khaimah is holding ISO 9001:2008 Quality Management System certification since 2011. Knauf has been certified on ISO 14001: 2004 and BHS OHSAS 18001:2007

Environmental certifications

For outstanding performances in water and energy management, our factory has been awarded the Environmental Performance Certificate from the Ministry of Environment and Water.



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